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Workaholism and Mental Health Among Polish Academic Workers

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The aim of this study was to examine the relationship between workaholism and mental health among 126 Polish academic workers. The participants' mean age was 45.9 years, 51.6% of them were women. The participants completed 2 questionnaires: the work addiction risk test and the general health questionnaire. Even though 66% of the subjects were classified in the group of moderate-to-high risk of workaholism, the overall state of mental health was categorized as average. The results revealed that workaholism was associated with poorer mental health. Employees with higher levels of workaholism had worse state of health, i.e., more somatic symptoms, higher levels of anxiety, insomnia, social dysfunction and symptoms of depression. Emotional arousal/perfectionism was the strongest predictor of the state of general health and was mostly responsible for harmful effects on mental health. However, the general effect of workaholism on health was not as strong as expected.

workaholism mental health academic workers

1. INTRODUCTION

1.1. Defining Workaholism

The term workaholism was first coined by Oates as "addiction to work, the compulsion or the uncontrollable need to work incessantly" (p. 57), which can bring a negative influence on health, personal happiness, interpersonal relations and social functioning [1]. Over the last four decades, many contradictions have arisen among researchers investigating this phenomenon, but there is still no agreement regarding the nature, causes and consequences of workaholism. Some researchers view workaholism as a positive construct [2, 3, 4]. According to Machlowitz, workaholism is not a disorder [3]. Workaholics simply value work satisfaction more than family relations. They exceed work requirements to receive mental income defined as "responsibility, meaning, opportunity [and] recognition" (p. 119) [3]. Similarly, Cantarow stresses that workaholics desire to be overinvolved in work, as work is a great source of gratification [2].

On the other hand, some authors emphasize the negative outcomes of extreme work patterns. Cherrington described workaholism as an "irrational commitment to excessive work" (p. 257) [5]. Analysing characteristics of workaholics' behaviour, researchers have found many similarities between indulgence in work and alcoholism [6, 7, 8]. Porter defined work addiction as "excessive involvement with work evidenced by neglect in other areas of life and based on internal motives of behavior maintenance rather than requirements of the job or organization" (p. 71) [7]. Therefore, work addicts tend to maintain the highest level of involvement even though the task could be done

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with less effort. As a result, workaholics might seem to be more involved in work than their nonaddicted co-workers; however, the reason why they work so hard is not to achieve more, but to stay involved.

Among the most attractive benefits that addicts receive from their indulgent behaviours are positive thoughts and feelings about the self, and avoidance of negative thoughts and feelings associated with other aspects of their lives [7]. Clinical observations show that workaholics, like alcoholics, experience withdrawal symptoms such as high stress and anxiety levels when they cannot work. Therefore, they are prone to experience physical and mental health problems [8, 9]. In addition, they can have difficulties in recognizing the compulsive nature of their behaviour. Denying the problem is a mechanism that protects them from undesirable disengagement from work activities [7].

The literature presents different typologies of workaholic behaviour patterns, each having various antecedents and consequences. Spence and Robbins created one of the most empirically tested approaches to workaholism [10]. On basis of "a workaholic triad" the authors identified three types of workaholic behavioural patterns. Each type is described by a combination of three dimensions: work involvement, drivenness and work enjoyment. Nonenthusiastic workaholics score high in work involvement and in drive but low in work enjoyment. Enthusiastic workaholics gain high scores in all three components, while work enthusiasts score high in work involvement and work enjoyment but low in drive. Buelens and Poelmans called the last type "the happy hard workers" (p. 454) and described them as enthusiastic people with a high level of social intelligence, who enjoy their work and try to avoid conflicts [11]. Spence and Robbins hypothesized that nonenthusiastic workaholics were more perfectionist and experienced higher stress levels and physical health symptoms than work enthusiasts and enthusiastic workaholics. The variety of workaholic types illustrates the complexity of this phenomenon and explains why there is still no widely accepted definition of workaholism.

1.2. Consequences of Workaholism

Several theories have been put forward on the potential harmful consequences of workaholism. According to Sharma and Sharma, workaholics focused mainly on their career and neglect other aspects of their lives: interpersonal life, family life and health [12]. The personal life imbalance resulted in alienation from friends and family, an existential crisis and physical symptoms. Workaholic lifestyle, with its high levels of stress and anxiety, could lead to physical illness. For example, Robinson noted that workaholics were predisposed to heart disease and experienced higher levels of job-related stress [13]. Moreover, Fassel stated that workaholism and particularly overwork could lead not only to physical symptoms like chest pain or ulcers but also to death [8]. The term *karoshi* comes from Japanese culture and denotes death or permanent disability from overwork [14].

Other studies have stressed the impact of workaholism on everyday life. For instance, Taris, Schaufeli and Verhoeven stated that workaholics were more prone to experience a work–nonwork conflict that occurred when one attempted to participate in many roles, each one imposing high demands [15]. The inter-role conflict resulted in one's dissatisfaction with these roles [16]. Machlowitz reported that workaholism meaningfully harmed an individual's personal life, as interviewed workaholics revealed feelings of failure concerning their family life [3].

Workaholism not only brings negative consequences for an addict but also has a great impact on the workaholic's family members, co-workers and friends. Robinson and Post stated that workaholism was positively correlated with family dysfunction [17]. Workaholism could lead to marital conflicts, divorces and negative psychological consequences for children [18]. Workaholics' families had dysfunctional patterns similar to alcoholic families: denial, high expectations of perfection and enabling [13]. In their study, Robinson, Carroll and Flowers discovered that female spouses of workaholics presented less positive affect toward their husbands, higher external locus of control and higher level of marital estrangement in

comparison to spouses of nonworkaholics [19]. Oates indicated that a husband's workaholism might affect a wife's behaviour, mainly provoking overinvolvement in a number of additional activities [1]. As a result, frustration could lead to another addiction, alcoholism. Robinson and Post indicated that workaholics perceived their families as having worse communication, less affective involvement and less clearly defined family roles than nonworkaholics [17]. Robinson, Carroll and Flowers obtained similar findings; they indicated that work addicts presented reduced positive emotions towards their spouses, reduced physical attraction and loss of positive emotions, caring and desire, in comparison to nonaddicts [19]. Additionally, Burke found that workaholics were less satisfied with their family life than other workers [20]. On the other hand, some studies did not reveal any evidence of disturbance in close relationships among work addicts [21].

Consequences of workaholism can also be seen in the workplace. Porter stressed that workaholic managers often facilitated destructive competitiveness among their subordinates and forced them to meet unrealistic standards [22]. The standards set by workaholic managers could cause conflict, resentment and low office morale [22, 23]. In addition, Machlowitz suggested that workaholics were poor team players and had difficulties in delegating tasks and responsibilities to other colleagues [3]. They were also critical towards co-workers and demanded as much devotion and dedication to the job from others as from themselves. However, they seemed to work inefficiently at times. Unsurprisingly, workaholics were preferred by organizations in which sacrifices and dedication were highly appreciated [7].

1.3. Workaholism and Mental Health

Workaholism has several potential consequences for mental health. Firstly, researchers examined the emotional consequences of workaholism. Machlowitz examined emotional well-being, defined as fulfilment, the opposite state of frustration [3]. She interviewed a group of workaholics and found most of them to be satisfied with their life. On the other hand, Chamberlin and Zhang found that workaholism was associated with lower levels of psychological well-being and self-acceptance [24], while Shimazu, Schaufeli and Taris indicated that workaholism was related to emotional discharge, which led to poor health [9]. Moreover, other studies revealed that workaholism correlated with depression, anxiety and perfectionism [10, 16, 25]. Golińska found that workaholism, described as a combination of drivenness and low work enjoyment, was negatively related to mental health [26]. Drivenness was associated with higher levels of somatic symptoms, anxiety and insomnia, and social dysfunction. According to Shimazu and Schaufeli workaholics presented relatively high levels of psychological distress and physical complaints [27]. What is more, work addicts scored higher on two out of three burnout components, i.e., cynicism and exhaustion [28]. Ogińska-Bulik's studies also revealed that workaholics, compared with nonworkaholics, yielded higher levels of negative affectivity [29, 30]. Moreover, they also tended to suppress those negative emotions.

On the other hand, Golińska subsequently found that workaholics presented higher levels of life satisfaction than nonworkaholics [31]. She also indicated that a higher level of work preoccupation was associated with a higher sense of coherence. Furthermore, workaholics were more likely to experience curiosity and anger at work than nonaddicts but they did not differ in the level of anxiety. Workaholics presented higher levels of negative emotions at work than nonworkaholics but at the same time they experienced more positive emotions.

Not only workaholics suffer from poor mental health as a consequence of their addiction. A study comparing adult children of workaholics with adult children of nonworkaholics revealed that the former presented higher levels of depression and role reversal between parent and child [28].

The disagreement between researchers concerning the nature of workaholism and its negative outcomes brings conceptual confusion. According to Schaufeli, Taris and Bakker, it is more reasonable to replace the "good" form of workaholism with the term "work engagement",

and define the "bad" form of workaholism as a "…behavioural pattern characterized by working excessively hard out of an inner compulsion" (p. 208) [32]. Their study showed that work engagement (good workaholism) and bad workaholism were positively related to excessive work, while working compulsively was typical only for bad workaholism. Furthermore, Schaufeli et al. found that working excessively was only weakly negatively correlated with perceived health and neither with happiness nor absence from work. Working compulsively was strongly negatively related to perceived health and happiness. Those findings correspond with McMillan, O'Driscoll, Marsh, et al.'s study, which suggested that a strong inner drive could be a harmful element of workaholism [33]. According to Jones and Peiperl, working excessively, in contrast to working compulsively, could bring external rewards like salary, career development and recognition that could buffer negative effects on employee health and well-being [34]. Schaufeli et al. concluded that work engagement seemed beneficial for well-being, whereas compulsive work had a harmful influence on an employee's well-being [32].

2. MATERIALS AND METHODS

2.1. Purpose of the Study

Even though previous studies examined the relationship between psychological well-being and workaholism, the answer to the question of whether or not workaholism has negative consequences for employees' mental health remains unclear. To address the unresolved theoretical issue the current study examined the relationship between workaholism and the state of mental health in a group of Polish academic workers. The study aimed to answer the following research questions:

1. Are academic workers prone to workaholism and, if so, to what extent?
2. Is there a relationship between demographic variables such as age, gender, academic discipline, and workaholism and the state of mental health in a group of academic workers?
3. Is there a relationship between workaholism and mental health (treated as a dependent variable) among participants?
4. Which of the independent variables (dimensions of workaholism and demographic variables) are predictors of the state of mental health and its subscales among participants, if any?

2.2. Sample and Procedure

The participants for this study were selected from academic workers at the University of Łódź and the Technical University of Łódź. One hundred and twenty-six respondents returned their questionnaires; 51.6% were females (N = 65), 48.4% were males (N = 61). The mean age was 45.9 years (SD = 11.3), ranging from 28 to 76 years. Most participants (N = 103, 81.7%) held Ph.D. degrees, 18.3% were professors (N = 23). The mean period of employment was 19.3 years (SD = 12.3) ranging from 2 to 45 years. Academic disciplines were divided into the humanities (N = 72, 57.1%) and the sciences (N = 54, 42.9%). The survey was carried out between December 2008 and February 2009. Respondents were asked by e-mail to participate in the study. Some filled in paper-and-pencil versions of the questionnaires (N = 67), while others completed Internet-based ones (N = 59). Participation was voluntary and questionnaires were administered in one sitting.

2.3. Instruments

Two questionnaires were used in the study: the work addiction risk test (WART) [25] and the general health questionnaire (GHQ-28) [36].

The Polish adaptation of WART consists of 25 items, which measure the risk of work addiction [35]. Respondents rate how well each item describes their work habits. Responses are scored on a 4-point Likert-type scale ranging from 1—*never true* to 4—*always true*. A total score ranges from 25 to 100. Scores under 56 indicate no workaholism. Scores of 57–66 indicate medium risk of workaholism, while scores over 66 indicate high risk of workaholism. Construct validity and reliability are satisfactory.

Cronbach's α of .87 suggests a high level of internal consistency. Factor analysis discovered five dimensions: obsession/compulsion, emotional arousal/perfectionism, overdoing, result orientation and self-worth.

The Polish adaptation of GHQ-28 is a 28-item self-report inventory measuring the general health state and its four subscales: somatic symptoms, anxiety/insomnia, social dysfunction and symptoms of depression [37]. Respondents are asked to rate their recent psychological state on a 4-point Likert-type scale: 1—*not at all*, 2—*no more than usual*, 3—*rather more than usual*, 4—*much more than usual*. A total scale score ranges from 28 to 112. The higher the score, the worse the patient's psychological well-being. Cronbach's α for the state of general health is .93.

2.4. Data Analysis

The analyses were done with SPSS version 14PL for Windows. The means and the standard deviations were computed for all dependent and independent variables. The differences in the state of mental health according to four demographic variables (age, gender, academic degree and academic discipline) were checked with a *t* test for independent samples. Pearson product–moment correlation coefficients were used to test the relationship between all analysed variables. Finally, a series of hierarchical multiple regression analyses was computed to identify predictors of the state of general health and its subscales.

3. RESULTS

3.1. Descriptive Statistics

Table 1 shows the means and the standard deviations for independent and dependent variables. The state of general health in the group of academic workers (M = 23.3, SD = 11.94) may be considered as average (sten 5) according to Makowska and Merecz's normative data [37]. The highest scores were obtained in the following subscales: anxiety/insomnia (M = 7.50, SD = 4.71), social dysfunction (M = 7.10, SD = 2.64) and somatic symptoms (M = 6.90, SD = 4.27). A significantly lower score was reported in symptoms of depression (M = 1.79, SD = 3.12, $p < .001$).

The study group presented moderate risk of workaholism (M = 57.74, SD = 10.11). However, only 34.1% of the participants belonged to the group of low risk of workaholism, while 65.9% belonged to the group of moderate (43.7%) or high risk (22.2%) of work addiction.

TABLE 1. Means and Standard Deviations for Independent and Dependent Variables (N = 126)

Variable	*M*	*SD*
General health status	23.30	11.94
somatic symptoms	6.90	4.27
anxiety/insomnia	7.50	4.71
social dysfunction	7.10	2.64
symptoms of depression	1.79	3.12
Total WART scale	57.74	10.11
obsession/compulsion	14.51	3.64
emotional arousal/perfectionism	15.90	3.50
overdoing	10.80	2.68
result orientation	7.25	1.53
self-worth	9.24	1.96

Notes. WART—work addiction risk test.

Table 2 presents results of *t* tests for independent samples, which were used to establish differences between the means of the state of general health and workaholism and their subscales, and three demographic variables: age, gender and academic discipline.

Based on the mean (46), the age variable was divided into two categories: younger workers (46 years old or younger) and older workers (over 46 years old). The younger workers did not differ from the older ones in the state of general health or in the level of workaholism. There were significant differences between younger and older participants in only one subscale of mental health (symptoms of depression) and in two workaholism subscales (obsession/compulsion and result orientation). Younger workers had higher levels of depression symptoms and were more result-oriented than their older colleagues. However, older participants had higher levels of obsession/compulsion than the younger group. No significant differences were found between

males and females in the state of general health and workaholism or in their subscales. Academic workers in the sciences showed higher levels of social dysfunction than those in the humanities; however, they did not differ in the state of general health or in the levels of workaholism and its subscales.

3.2. Correlations Between Workaholism Components and Mental Health

In the next stage, the analysis examined the relationship between workaholism and the state of mental health. Table 3 presents Pearson's correlation coefficients.

Workaholism and all of its subscales significantly correlated with the state of general health and its dimensions. The participants with higher levels of workaholism reported higher levels of somatic symptoms, anxiety/insomnia, social dysfunction, and symptoms of depression. The strongest relationships were observed between two factors: the total WART scale and emotional arousal/perfectionism, and all scales of mental health (especially the state of general health and anxiety/insomnia). Somatic symptoms correlated most strongly with emotional arousal/perfectionism, total WART scale and result orientation. Anxiety/insomnia correlated with all workaholism subscales except for self-worth. Social dysfunction correlated most strongly

TABLE 2. Results of *t* Tests for Independent Samples Examining the Differences in the State of General Health and Workaholism and Their Subscales Between Gender, Age and Academic Discipline

	Age					Gender					Academic Discipline				
	Younger Participants		Older Participants			Males		Females			Humanities		Sciences		
Variables	*M*	*SD*	*M*	*SD*	*p*	*M*	*SD*	*M*	*SD*	*p*	*M*	*SD*	*M*	*SD*	*p*
General health status	24.15	13.42	22.17	9.62	*ns*	23.23	10.40	23.37	13.30	ns	22.38	12.03	24.54	11.81	*ns*
somatic symptoms	7.07	4.55	6.67	3.89	*ns*	6.52	3.20	7.25	5.07	*ns*	6.68	4.61	7.19	3.78	*ns*
anxiety/insomnia	7.47	4.87	7.54	4.53	*ns*	7.49	4.49	7.51	4.95	*ns*	7.47	4.82	7.54	4.60	*ns*
social dysfunction	7.38	2.92	6.72	2.18	*ns*	7.30	2.67	6.91	2.61	*ns*	6.67	2.26	7.67	3.00	.04
symptoms of depression	2.24	3.77	1.20	1.82	.04	1.92	3.43	1.68	2.81	*ns*	1.53	2.63	2.15	3.66	*ns*
Total WART scale	57.44	10.06	58.13	10.25	*ns*	57.61	9.27	57.86	10.91	*ns*	58.75	10.65	56.39	9.25	*ns*
obsession/ compulsion	13.82	3.42	15.43	3.74	.01	14.62	3.82	14.40	3.48	*ns*	14.68	3.54	14.28	3.77	*ns*
emotional arousal/ perfectionism	16.13	3.39	15.61	3.64	*ns*	16.05	3.56	15.77	3.46	*ns*	16.22	3.50	15.48	3.48	*ns*
overdoing	10.83	2.84	10.76	2.46	*ns*	10.52	2.61	11.06	2.73	*ns*	11.17	2.78	10.31	2.48	*ns*
result orientation	7.53	1.48	6.89	1.53	.02	7.18	1.66	7.32	1.40	*ns*	7.22	1.58	7.30	1.48	*ns*
self-worth	9.28	2.02	9.19	1.88	*ns*	9.30	2.01	9.18	1.92	*ns*	9.39	2.03	9.04	1.86	*ns*

Notes. WART—work addiction risk test.

TABLE 3. Pearson's Correlation Coefficients Between Workaholism and Mental Health

Mental Health	Total WART Scale	Obsession/ Compulsion	Emotional Arousal/ Perfectionism	Overdoing	Result Orientation	Self-Worth
General health status	.418 **	.251**	.447**	.324**	.307**	.138
Somatic symptoms	.328**	.181*	.369**	.228*	.279**	.095
Anxiety/insomnia	.440**	.292**	.499**	.342**	.230**	.110
Social dysfunction	.222*	.118	.185*	.165	.341**	.045
Symptoms of depression	.300**	.167	.299**	.276**	.161	.198*

Notes. *$p < .05$, **$p < .01$; WART—work addiction risk test.

with result orientation, while severe depression correlated with total WART scale, emotional arousal/perfectionism and overdoing.

3.3. Predictors of Mental Health—The Results of Hierarchical Multiple Regression Analyses

The next stage of the analysis assessed predictors of the state of general health and its subscales. A series of hierarchical multiple regression analyses was computed using the state of general health and its subscales as dependent variables. Independent variables were entered into the equation in two steps. Demographic variables (age, gender and academic discipline) were entered in step 1, workaholism subscales in step 2. Table 4 shows the results of hierarchical multiple regression analyses.

TABLE 4. Hierarchical Multiple Regression Analysis Examining the Effects of Workaholism on the State of General Health and Its Subscales

	General Health Status			Somatic Symptoms			Anxiety/Insomnia		
Variable	***B***	***SE***	**β**	***B***	***SE***	**β**	***B***	***SE***	**β**
Step 1									
age	0.03	0.10	0.03	0.03	0.04	0.08	0.05	0.04	0.12
gender	–1.66	2.50	–0.07	–1.41	0.89	–0.17	–0.34	0.99	–0.40
academic discipline	–2.91	2.46	–0.12	–1.13	0.87	–0.13	–0.13	0.97	–0.01
Step 2									
age	0.03	0.09	0.03	0.03	0.03	0.09	0.04	0.03	0.10
gender	–1.90	2.21	–0.08	–1.53	0.83	–0.18	–0.52	0.85	–0.06
academic discipline	–4.30	2.19	–0.18	–1.49	0.82	–0.17	–0.77	0.84	–0.08
obsession/compulsion	0.15	0.40	0.05	0.01	0.15	0.01	0.14	0.15	0.11
emotional arousal/ perfectionism	1.17	0.34	0.34***	0.39	0.13	0.32**	0.58	0.13	0.43***
overdoing	0.90	0.45	0.20*	0.18	0.17	0.11	0.32	0.17	0.18
result orientation	1.44	0.67	0.18*	0.49	0.25	0.18	0.32	0.26	0.10
self-worth	–0.88	0.66	–0.14	–0.25	0.25	–0.11	–0.55	0.25	–0.23*

	Social Dysfunction			Symptoms of Depression		
Variable	***B***	***SE***	**β**	***B***	***SE***	**β**
Step 1						
age	–0.01	0.02	–0.05	–0.04	0.03	–0.14
gender	–0.04	0.55	–0.01	0.16	0.65	0.03
academic discipline	–1.04	0.54	–0.20	–0.62	0.64	–0.10
Step 2						
age	–0.01	0.02	–0.04	–0.05	0.02	–0.19*
gender	0.13	0.52	0.03	0.12	0.61	0.02
academic discipline	–1.02	0.51	–0.19*			
obsession/compulsion	0.05	0.09	0.08			
emotional arousal/ perfectionism	0.03	0.08	0.03			
overdoing	0.17	0.11	0.17			
result orientation	0.57	0.16	0.33***			
self-worth	–0.21	0.16	–0.16			
total WART scale				0.11	0.03	0.34***

Notes. *$p < .05$, **$p < .01$, ***$p < .001$. State of general health: $R^2 = .01$ for step 1, $\Delta R^2 = .27$ for step 2 ($p < .001$); somatic symptoms: $R^2 = .03$ for step 1, $\Delta R^2 = .19$ for step 2 ($p < .001$); anxiety/insomnia: $R^2 = .01$ for step 1, $\Delta R^2 = .30$ for step 2 ($p < .001$); social dysfunction: $R^2 = .04$ for step 1, $\Delta R^2 = .15$ for step 2 ($p < .001$); symptoms of depression: $R^2 = .03$ for step 1, $\Delta R^2 = .14$ for step 2 ($p < .001$). WART—work addiction risk test.

3.3.1. Workaholism components and the state of general health

Analysis of the data revealed that the components of workaholism explained 28.4% of the variance in the state of general health; R^2 = .28, adjusted R^2 = .24, $F(5, 117) = 8.91$, $p < .001$. Three subscales of workaholism (emotional arousal/perfectionism, overdoing and result orientation) were significant predictors of the state of general health. The relationship between the predictors and general health was positive, with an increase in emotional arousal, overdoing and result orientation being associated with worse general health (a higher score in GHQ). Demographic variables were not significant predictors of the state of general health.

3.3.2. Workaholism components and somatic symptoms

The model in step 2 explained 21.3% of the variance in somatic symptoms; R^2 = .21, adjusted R^2 = .16, $F(5, 117) = 5.56$, $p < .001$. Emotional arousal/perfectionism was the only significant predictor; $\beta = 0.32$, $p = .003$. Higher levels of emotional arousal and perfectionism were associated with higher levels of somatic symptoms. Similarly, no demographic variables were found to be a significant predictor in the model.

3.3.3. Workaholism components and anxiety/insomnia

The model in step 2 made 31.5% of the total variance in anxiety/insomnia; R^2 = .32, adjusted R^2 = .27, $F(5, 117) = 10.35$, $p < .001$. The predictors of anxiety/insomnia were emotional arousal/perfectionism and self-worth. The relationship between emotional arousal/perfectionism and anxiety/insomnia was positive ($\beta = 0.43$, $p < .001$). An increase in emotional arousal/perfectionism was associated with a higher level of anxiety/insomnia, while the relationship between self-worth and anxiety/insomnia was negative ($\beta = –0.23$, $p = .03$). A higher level of anxiety/insomnia was associated with a decrease in self-worth. The demographic variables were not significant predictors of anxiety/insomnia.

3.3.4. Workaholism components and social dysfunction

Result orientation and one of the demographic variables, academic discipline, were significant predictors of social dysfunction. The model in step 2 explained 18.9% of the total variance in the dependent variable; R^2 = .19, adjusted R^2 = .13, $F(5, 117) = 4.34$, $p = .001$. The relationship between result orientation and social dysfunction was positive ($\beta = 0.33$, $p < .001$), which means that higher levels of social dysfunction were associated with an increase in result orientation. Academic workers in the sciences were more likely to experience social dysfunction than academic workers in the humanities ($\beta = –0.19$, $p < .049$).

3.3.5. Total WART scale and symptoms of depression

No subscales of workaholism were significant predictors of symptoms of depression. However, when the analysis was rerun using total WART scale instead of its subscales in step 2, two variables, age and total WART scale, became predictors of symptoms of depression. The model in step 2 made 14.2% of the total variance in symptoms of depression; R^2 = .14, adjusted R^2 = .11, $F(1, 121) = 15.98$, $p < .001$. The relationship between workaholism and symptoms of depression was positive: the higher the score on the workaholism scale, the higher the level of depression symptoms ($\beta = 0.34$, $p < .001$). Age and symptoms of depression were negatively associated. The levels of symptoms of depression decrease with age ($\beta = –0.19$, $p = .033$).

4. DISCUSSION

This study considered a hypothesized relationship between workaholism and mental health of academic workers. The workers' state of mental health was average. Anxiety, insomnia and social dysfunction were the most common negative symptoms. The data corresponds with Ogińska-Bulik's study of a large group of Polish employees [38]. The state of health of academic workers ($M = 23.30$, $SD = 11.94$) was

better than that of probation officers (M = 25.52, SD = 12.94) or journalists (M = 24.77, SD = 11.99) but worse than of prison services staff (M = 15.02, SD = 9.58), municipal guards (M = 15.70, SD = 10.86) or secondary school teachers (M = 17.18, SD = 9.93).

Almost 66% of the participants were classified into the groups of moderate-to-high risk of workaholism. The results are broadly congruent with data obtained in a group of human services workers [29]. However, academic workers present lower levels of emotional arousal/perfectionism (M = 15.9, SD = 3.5) than human services employees with type-D personality (M = 21.06, SD = 4.97), and employees with non-type-D personality (M = 17.10, SD = 4.21).

There was no support for the hypothesized association between the state of general health and demographic variables such as gender and age. Women and men did not differ in the general health state and its subscales. Similarly, no differences were found between younger and older workers in the state of general health and in the levels of workaholism; however, older participants had higher levels of obsession/compulsion than the younger group. Similarly, no differences were found between younger and older workers in the state of general health and in the level of workaholism. However, older participants presented higher levels of obsession/compulsion, whereas younger workers presented higher levels of depression symptoms and were more result-oriented. These findings may be explained by high levels of demands experienced by young researchers in the initial stage of their career, which in turn can lead to an increase in depression symptoms and result orientation. Previous studies revealed that males had a better state of general health than females, and that the state of general health declined with age. Furthermore, older workers and women reported higher levels of somatic symptoms, anxiety and insomnia [38, 39]. Findings from this study indicated there were no negative effects of gender and age on mental health in academic workers. Interestingly, the results showed that academic workers in the sciences had higher levels of social dysfunction than workers in the humanities.

The results confirm that workaholism is associated with poorer mental health. Workers with higher levels of workaholism had a worse state of general health, more somatic symptoms, higher levels of anxiety/insomnia, social dysfunction and symptoms of depression. Emotional arousal/perfectionism was the strongest predictor of the state of general health and its two subscales of anxiety/insomnia and somatic symptoms. Hence, emotional arousal/perfectionism was the component of a workaholic's behaviour which is mostly responsible for the harmful effects on mental health. Moreover, overdoing and result orientation were also found to be significant predictors of the state of general mental health, the latter also being a significant predictor of social dysfunction. Even though 66% of the subjects were classified as having moderate-to-high risk of workaholism, the overall state of mental health was categorized as average. Therefore, the general effect of workaholism on mental health in a group of academic workers is not as strong as expected.

There are some limitations of the study. Firstly, due to the cross-sectional design no conclusion can be made about a causal order. Secondly, this study was based on data from self-report measures, which means that the effect may be biased due to the common method variance. Another limitation consists in the characteristics of the sample used in the study, which consists of highly educated and experienced Polish academic workers representing only two universities in the country. This could potentially influence the size of the correlations, and limits the generalizability of the results.

This study helped better understand the characteristics of work in academia and the potential negative effects of the work environment on the mental health of academic workers. In contrast to previous studies that examined the state of mental health among different occupational groups, mental health of academic workers does not decline with age and women do not have a worse state of general health than men. These findings encourage considering potential factors that enable this occupational group to stay healthier over time and reduce between-gender differences. In future studies, an analysis of these

potential factors should be considered, as the results may be beneficial for a wider population of employees. What is more, the study showed that perfectionism and emotional arousal were the highest threat for the state of mental health. This finding could be considered by therapists treating workaholics. Thus, more effort should be put into reducing perfectionism among workaholics, as this could be mostly beneficial for their health.

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